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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/415,966	10/12/1999	STEVEN A. BENNER	SUL-402D1	5522

7590 11/06/2002

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EXAMINER

ZITOMER, STEPHANIE W

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 11/06/2002

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/415,966

Applicant(s)

BENNER, STEVEN A.

Examiner

Gary Jones

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2002 and 28 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4 and 7-31 is/are pending in the application.
- 4a) Of the above claim(s) 10-31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,7 and 8 is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This action is written in response to applicant's papers filed 6/28/02 and 8/5/03 (papers numbered 12 and 14. Applicant's arguments have been considered but are not persuasive to place all of the claims in condition for allowance. **THIS ACTION IS FINAL.**
2. Claim 31 was not addressed in the Office Action mailed 3/21/02. This claim should have been placed in group III which was withdrawn from consideration therein. Thus, claim 31 is withdrawn. Applicant was informed of the withdrawal of claim 31 in a telephone conversation on 11/1/02.
3. Applicant's remarks with regard to claims 3, 4, 7, and 8 are persuasive, and the rejections in view of these claims are hereby **WITHDRAWN**. Claims 3, 4, 7, and 8 are allowed.
4. There are non-elected claims in this application. In response to this final rejection, these claims should be cancelled.

Claim Rejections - 35 USC § 112

5. The 112 1st paragraph lack of enablement rejection set forth in paper number 11 is maintained with respect to claim 9. Applicant has not enabled one of skill in the art to practice the claimed improvement, because the specification does not provide any particular guidance as to how the cofactor is to effect catalytic activity or to result in catalytic activity if the cofactor is to have any effect at all on catalytic activity. The skilled artisan would therefore be required to perform additional extensive experimentation without a reasonable expectation of whether the cofactors could be used in a method for creating a catalyst for a preselected reaction. Applicant argues that the specification discusses at length why one of ordinary skill in the art expects

Art Unit: 1634

adding cofactors to a library will enhance catalytic activity, particularly discussing proteins.

However, this is not persuasive because the specification does not discuss the addition of cofactors as in the instant method, nor the particular effect that such cofactors would have.

Beyond the fact that these “cofactors” are organic cofactors, the specification nor claims provide no guidance as to their functionality or how they would effect the method of the prior art.

Neither the specification nor the claims provide any structure for these cofactors. Applicant argues that one need not have an understanding of how the cofactor confers catalytic activity to find an improved process that uses cofactors to be useful. However, at issue here is not whether or not the process could be useful, but instead, has the specification enabled one of ordinary skill in the art to practice the claimed invention. In this case, for the reasons of record and further explained herein, the examiner concludes that the specification has not provided such enabling disclosure.

NEW GROUNDS OF REJECTION (necessitated by amendment)

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is indefinite over the recitation of “copying” because it is not clear how one is to copy the oligonucleotides having increased catalytic activity. It is not clear what it means to copy an oligonucleotide, as this is not an art recognized term, nor is it clearly defined in the

Art Unit: 1634

specification. Furthermore, it is not clear what it means for the cofactor to carry "functionality not present on natural nucleotides." It is not clear how a cofactor carries a functionality, for example, is this the equivalent of a cofactor having a particular activity?

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

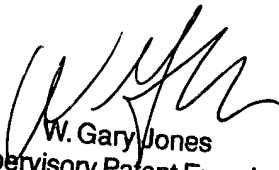
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1634

Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 and (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

November 4, 2002


W. Gary Jones
Supervisory Patent Examiner
Technology Center 1600